

## REMARKS/ARGUMENTS

Claims 19-36 are under examination in the application. The Final Office Action mailed on May 13, 2009 includes the following objections and rejections:

1. Claims 19-36 are rejected under 35 U.S.C. § 112, first paragraph, written description.

The claims have been amended to recite that the step in the carbonator is at least 700°C, which is supported throughout the specification as filed, e.g., page 15.

***Claims 19-36 are rejected under 35 U.S.C. § 112, first paragraph, written description.***

Applicants respectfully submit that claims 19-36 fully comply with 35 U.S.C. § 112, first paragraph. The Office Action rejects claims 19-36 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement stating

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 19 and 26 recite a step in a carbonator of at least 600°C and with a carbon dioxide stream of at least 85%. There is no support in the original disclosure for these ranges.

Applicants respectfully disagree. The subject matter was described in the specification in such a way and/or within the scope of the knowledge of the skilled artisan as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants assert that in this field the term “concentrated” as used in the applicatin is understood to be a term of art and the skilled artisan readily understands that it means at least 85%. What is conventional or well known to one of ordinary skill in the art need not be disclosed in detail. See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d at 1384, 231 USPQ at 94. See also *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1085 (Fed. Cir. 2005)(“The 'written description' requirement must be applied in the context of the particular invention and the state of the knowledge... As each field evolves, the balance also evolves

between what is known and what is added by each inventive contribution." ). If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g., *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating "the description need not be in *ipsis verbis* [i.e., "in the same words"] to be sufficient"). The carbon dioxide stream of at least 85% is supported by the knowledge of the skilled artisan as evidenced by the declaration attached hereto and incorporated herein.

The skilled artisan in the field of application of the present invention would readily understand that a concentrated stream of carbon dioxide is provided to the sorbent and that the concentration would have to be at least 85% in order to provide the "shock" to the sorbent. As stated in the 1.132 Declaration of the skilled artisan Edward John Anthony, incorporated herein by reference:

In the field of application of the present invention, as identified and discussed in the specification, a "concentrated" stream of carbon dioxide is provided to the sorbent. The person skilled in this art would clearly understand this to mean a high level of concentration, in this case of at least 85%, in order to provide the "shock" to the sorbent.

This is further supported in that it is consistent with the meaning of "concentrated" as used in identifying volumetric percentage values for carbon dioxide in related fields. For example, US Patent 4,344,486 identifies "concentrated carbon dioxide" as an effective agent in an enhanced oil recovery method as being "at least about 90%" in the second claim and "at least about 95%" in the third claim of the 4,344,486 patent. Under the doctrine of claim differentiation, the least about 90% limitation must further limit the independent claim, therefore the independent claim must be less than about 90% (i.e., 85%). Furthermore, the 4,344,486 patent qualifies the claimed percentage with the term "about" which again broadens the term from 90%. Again, consistent with the use of the term 85% in the instant claims. Therefore, the use of the term concentrated in the 4,344,486 patent is consistent with the use in the instant application and the attached declaration. The use of the term carbon dioxide stream of at least 85% is therefore supported by the knowledge of the skilled artisan and is evidenced by the declaration attached hereto.

In the field of the instant invention (and of the 4,344,486 patent) it is understood to the person skilled in this art that a “concentrated” stream of carbon dioxide provided to the sorbent means a high level of concentration, in this case of at least 85%, in order to provide the “shock” to the sorbent. Although usages in other fields have little or no bearing on this use it is noted that the field of carbon capture and storage, it is well known that the stream of carbon dioxide is required to be at least 90% pure for safety and effectiveness. However it must be noted that the usage in the carbon capture and storage field has no direct correlation to the field of the instant application and instant claims and is only provided for contextual purposes. As the skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification in *ipsis verbis*, the adequate description requirement is met.

Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. § 112, first paragraph.

### CONCLUSION

In light of the foregoing, Applicants submit that claims 19-36 are in condition for allowance, and an early Notice of Allowance of all pending claims is respectfully solicited.

This paper is being filed with all required fees; however, if any additional fees are necessary the Commissioner is hereby authorized to charge any fees, including those for an extension of time, to Chalker Flores, LLP's Deposit Account No. 50-4863.

If the Examiner has any questions or comments, or if further clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Dated: August 12, 2009

Respectfully submitted,

CHALKER FLORES, LLP



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